

ABSTRACT

A moving body drive unit includes a linear motor for imparting linear motion to a moving body, guide elements for non-contact guiding of the moving body with respect to a support body, a long scale (42) etched with gradations, a read head (41) for detecting position of the moving body by reading gradations of the scale without contacting the scale, a scale housing body (44) for housing the scale and the read head, attached to one of the moving body or the support body, and a scale cover (47), attached to the other one of the moving body or the support body. The scale housing body has an elongated opening (45) through which one of the scale or the read head can be inserted into the scale housing body, and a supply port (46) for introduction of compressed air. The scale cover forms an air chamber (49) sealing the elongated opening of the scale housing body in a non-contact manner with a microscopic gap (48). Compressed air is introduced from the supply port into the air chamber, and flows out from the microscopic gap between the scale housing body and the scale cover.